

## **Digital Forensics – CyberCSI 2010 Annual Report**

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### **1.0 Introduction**

Year 2010 has shown a tremendous increase in the number of digital-related crimes received by Digital Forensics Department (DFD) of CyberSecurity Malaysia. It is indeed another challenging year for DFD, with the explosion of digital technologies available on the market nowadays; cloud computing, iPad, disk-less computer, you-name-it; keeping DFD restless for the full year.

DFD has been providing digital forensics services to Law Enforcement Agency (LEA) and Regulatory Bodies (RBs) since 2005. As the vision of DFD in the Tenth Malaysia Plan is to continually become the National Centre of Reference and Excellence in Digital Forensics, DFD has strived to offer a quality service that continually meets the international standard, American Society of Crime Lab Directors Standard to the stakeholders. The team, nonetheless, is dedicated to promote excellence in forensics science through the research and innovation.

### **2.0 Digital Forensics Case Statistic**

In 2010, a total number of 600 cases have been reported to DFD as in Chart 1. The number has increased to 60.4% compared to year 2009. The cases being referred to DFD include digital forensics and data recovery. The exponentially increase on the chart shows the confidence and trustiness of stakeholders to the services that DFD offered. This also indicates that more agencies and publics are being aware of the services that being offered by CyberSecurity Malaysia, particularly DFD. People now realize that data in digital format is vital and it can either convict suspect to a crime, support the missing puzzle of a criminal cases, or it could just contain an important document that need to be submitted to higher authority.

In year 2010, out of the 600 cases, 428 of them were cases involving forensics on digital evidence. Observing the chart, the steady increase on the digital forensics cases from 2002 to 2010 shows the increasing trend of crimes related to digital devices.

Cases of digital forensics were referred to DFD by LEAs and RBs. PDRM recorded as the highest agency that refers to DFD for forensics service. Out of 428, 246

of them were from PDRM. Following from PDRM is the KPDKK, MCMC and SPRM, as in Table 1 and Chart 2.

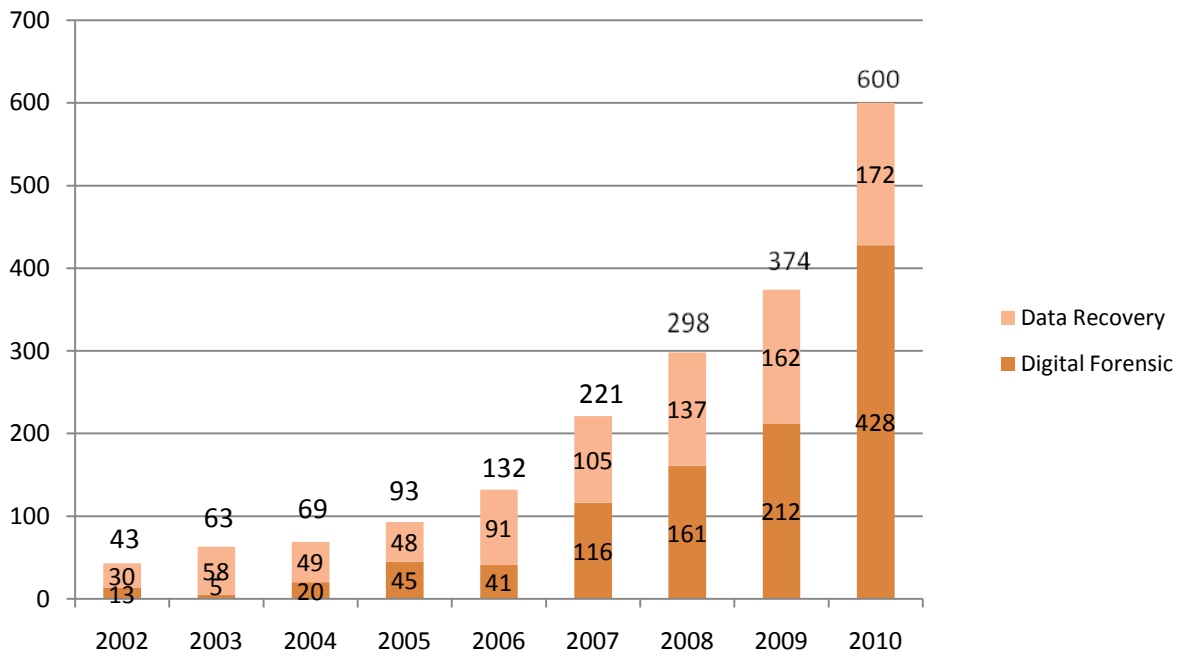


Chart 1: Statistic of Digital Forensics cases received by DFD from 2002 - 2010

No	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Agencies													
1	BNM	4	1	0	0	0	0	0	0	0	0	0	0	5
2	BPR	0	0	0	0	0	0	0	0	0	0	0	0	0
3	CSM	0	1	0	0	0	0	0	0	0	0	0	0	1
4	Immigration	0	1	0	0	0	0	0	1	0	0	0	0	2
5	KPDN	8	2	4	8	5	0	10	1	3	11	8	7	59
6	MCMC	4	4	1	4	0	0	5	0	3	5	1	0	26
7	PDRM	34	12	12	11	9	35	23	16	8	69	17	17	246
8	Private	0	0	0	0	0	0	0	0	0	0	0	0	0
9	SC	0	0	2	0	2	2	4	0	0	2	2	0	12
10	SSM	0	0	0	1	3	2	1	2	0	1	1	0	10
11	Personal	0	0	1	0	0	0	0	0	0	0	0	0	1
12	Muzium	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Kementerian Pertahanan	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Majlis Keselamatan Negara	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Kastam	0	0	0	0	0	0	0	3	0	14	6	2	19

16	SKM	0	1	0	1	1	1	0	0	0	2	0	0	6
17	SPRM	1	3	0	1	0	0	1	0	1	7	2	8	22
18	TUDM	0	0	0	0	1	0	0	0	0	2	1	0	3
19	Maritim	2	0	1	1	0	0	0	0	0	0	0	0	4
20	KeTTHA	0	0	2	0	0	0	0	0	0	0	0	0	2
21	Jabatan Agama Johor	0	0	0	1	0	0	0	0	0	0	0	0	1
22	MOF							1	0	0	0	0	0	1
23	JAWI	0	0	0	0	0	1	0	0	0	1	0	0	2
24	Telekom	0	0	0	0	0	0	1	0	0	0	0	0	1
25	Jabatan Perhilitan									1	1	1	0	2
26	ATM									3	0	0		3
<b>Total</b>		<b>53</b>	<b>25</b>	<b>23</b>	<b>28</b>	<b>21</b>	<b>41</b>	<b>46</b>	<b>23</b>	<b>16</b>	<b>118</b>	<b>39</b>	<b>34</b>	<b>428</b>

Table 1: Total of forensics cases received from LEAs and RBs by month

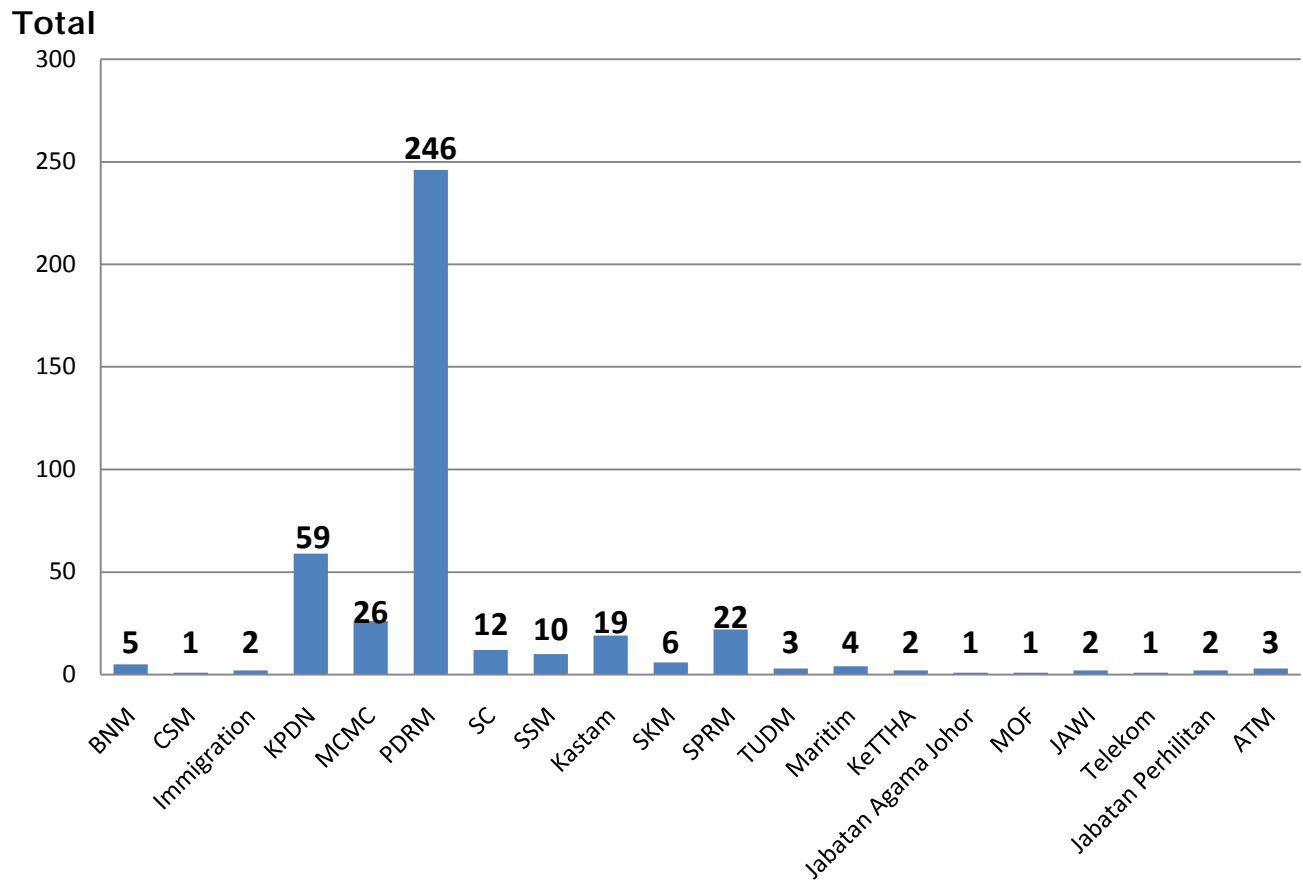


Chart 2: Statistic of forensics cases received by DFD from Agencies for Year 2010

As shown in Chart 3 below, crime involving financial fraud was in the top of the list for year 2010 with 104 cases being reported to DFD. Some case studies of financial fraud cases were multi level marketing and unlicensed direct selling.

The second and third highest categories were harassment and gambling which recorded 65 and 64 cases respectively. Harassment cases include sedition and sexual stalking. Gambling cases, mostly were committed at a cyber café, were drastically increasing from only 2 cases in 2009 to 64 cases in 2010.

Others cases; such as castigation and murder, takes fourth place with 43 cases being reported to DFD. The fifth place in the chart is Copyright, with cases reported as many as 33.

Bribery is a new category introduced in 2010, recorded with 20 cases being referred to DFD. For Physical Attack, Robbery, Document Falsification and Voice Identification, the cases recorded were lowest among the others which are only 8, 8, 6 and 2 respectively. Cases involving document falsification, for example forgery of passport, is decreased compared to last year. In 2009, it was recorded as much as 24 cases.

### Total

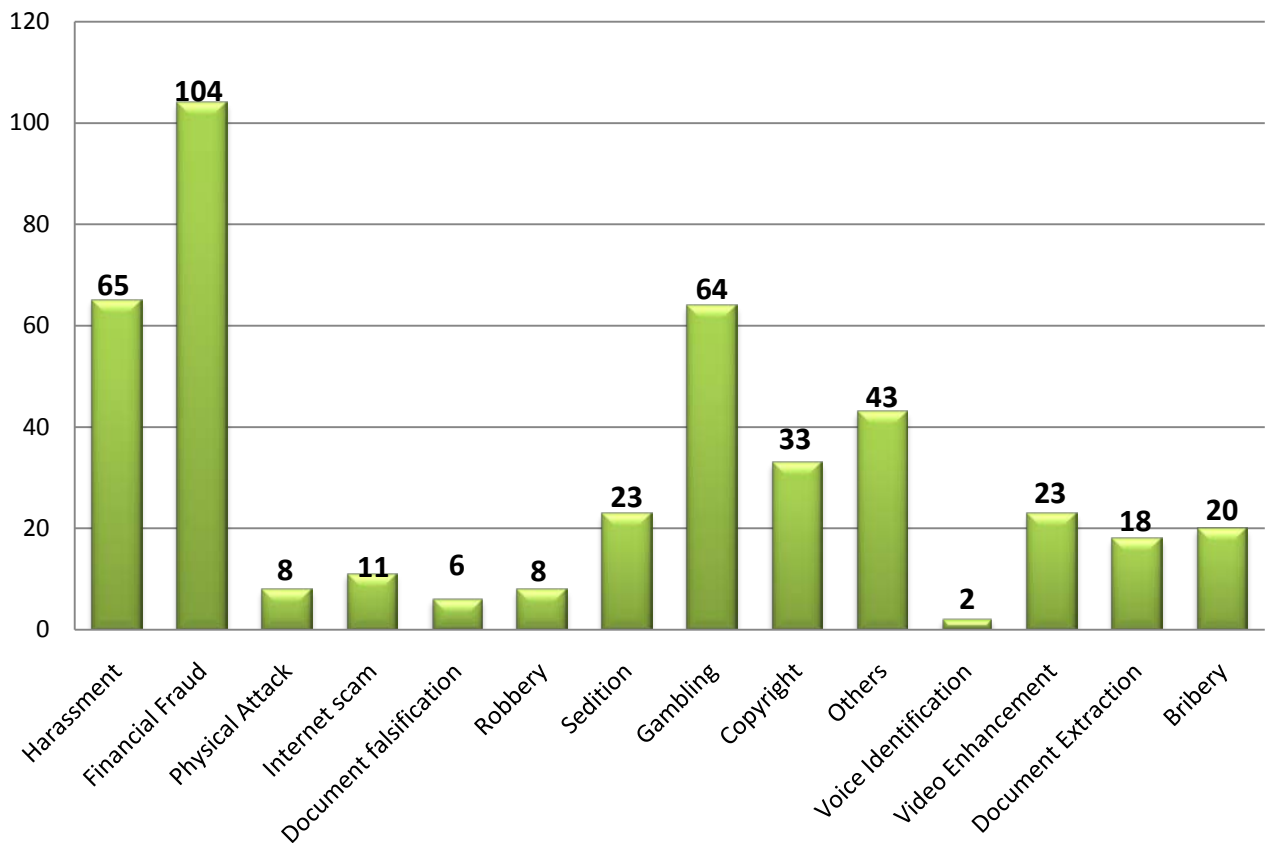


Chart 3: Statistic of cases received by DFD according to category of crime for 2010

### **3.0 Training, Talks & Knowledge Sharing**

As the vision of CyberSecurity Malaysia is to increase the number of professional and to build national capacity in information security, DFD has actively being involved in providing trainings to locals, contributing knowledge to LEAs and RBs, and sharing experience in local and international events.

Some of the talks and seminars that DFD has participated in 2010 were to the Institut Tadbiran Awam Negara, Maritim Institute of Malaysia, Polis DiRaja Malaysia Johor, Suruhanjaya Koperasi Malaysia, Institut Latihan Kehakiman dan Perundangan, Jabatan Peguam Negara and Japan Police Department.

Year 2010 has also been a soaring year for DFD, with the success of two seminars conducted during the CSM-ACE 2010 (<http://www.csm-ace.my/>) held at Kuala Lumpur Convention Centre (KLCC) on 25-29 October 2010. The first seminar was 'Digital Forensics Closed Session Seminar for Law Enforcement Agencies and Regulatory Bodies' and the second seminar was 'Digital Forensics Satellite Event for Researchers & Academicians'.

Professional trainings have also been actively conducted by DFD to LEAs and RBs in order to develop capacity of locals in digital forensics. Some of the said trainings were Certified Fraud Examiner (CFE) under the Central Bank of Malaysia (Bank Negara Malaysia) and to the Akademi Kastam DiRaja Malaysia.

Apart from that, under the initiate of knowledge sharing, DFD has continuously participating in talks and lectures invitations to all interested parties from the government, non-profit organizations and private sectors.

### **4.0 Research & Development**

Additionally, DFD is always committed in the area of Research & Development (R&D). The focus of the R&D last year was on biometric forensics. 2010 has shown an increase on CCTV cases related to biometric comparison, thus more R&D need to be done in this area in order to solve crimes.

Through our R&D programs to create awareness and improvement in digital forensics investigation, as a result, there were several MoUs signed with local IPTS and IPTA. One example was collaboration with University Technology Malaysia. We have also assisted other varsities and colleges such as UiTM, UUM, UTM, UKM, UIA, and UTP with course module development, part-time lecturing, student internship programs and supervising research programs at postgraduate level. This genuine endeavor is done in order to help producing more graduates in digital forensics expertise. Up to date we were informed that all the efforts have began to be fruitful where more students have enrolled in digital forensics related courses.

## **5.0 Conclusion**

2010 has been a great starting year for the Tenth Malaysia Plan for DFD. The same vision from the Ninth Malaysia Plan will be carried on to the Tenth Malaysia Plan as it has proven noble. This coming year, 2011, DFD will put more focus on building nation capacity and capability in digital forensics. Last but not least, DFD will continue to serve and strive to deliver the best service to the nation.